

REMARKS

Attached herewith is an Excess Claim Fee letter and fee for an excess independent claim and a petition and fee for a time extension.

Claims 1-17 are all the claims presently pending in the application. New claims 8-17 have been added.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-7 are understood as standing rejected under 35 U.S.C § 102(b) as being anticipated by Bender, et al (U.S. Patent No. 6,002,933).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

As described and defined, for example, by claim 1, the claimed invention is directed to a mobile communication system including a base station disposed in each of service areas for performing radio communication with a mobile station positioned in any of the service areas.

A base station controller having channel station data indicative of whether there is a channel between a mobile switching center as a master station thereof and another mobile switching center. The base station controller has means for, when a hand-off control process is to be performed via said mobile switching center as the master station while communication with the mobile station through the base station, determining whether or not, based on the channel station data, the mobile switching center as the master station has a channel connected to the other mobile switching center. If the mobile switching center as the master station has a channel connected to the other mobile switching center, the base station requests a hand-off control process as a process for switching communication channels for communication with the mobile station.

There is also a mobile switching center as the master station of the base station controller, for performing a hand-off control process between itself and the other mobile switching center when the hand-off control process is requested.

Conventional systems provide assured hand-offs between base stations within a mobile communications system but not between systems.

The claimed invention, on the other hand, provides a hand-off in which the base station controller of one system can check to ensure that the adjacent communications system mobile switching center has established a channel with the mobile station prior to the hand-off to the adjacent system.

Moreover, the present invention provides such a method without expensive changes to the existing architecture of conventional mobile communications systems. Therefore, the present invention provides a cost-effective method to increase quality in such mobile communications systems.

Indeed, as mentioned in the first paragraph on page 19 of the present application specification, the present invention provides a method wherein the same pilot signal frequency can be used between adjacent systems.

II. THE PRIOR ART REJECTION

The Examiner alleges that Bender teaches the claimed invention as defined by original claims 1-7. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Bender.

That is, in order to meet the Examiner's initial burden, it must be demonstrated that Bender teaches each limitation of the claimed invention as these limitations would be interpreted by one of ordinary skill in the art, giving the claim words their plain meaning.

More specifically, Bender fails to provide an assurance of a hand-off to the adjacent communications system as described by the independent claims. The Examiner points to components in Bender that, arguably, could be modified to function as described in the independent claims. However, the description at lines 29-50 of column 4 does not describe in any way the details of the claim limitations. One of the key advantages of the present invention is that components of Bender could easily be modified to perform the described functions that are not currently provided.

As clearly described at lines 8-33 of column 5, for inter-system hand-offs in Bender, the selector 40 of base station controller 24A merely determines that base station controller 24B is controlled by another MSC (e.g., another system). The base station controller 24A of

Bender does not confirm that the second MSC has established a channel with the mobile station, as is described in the independent claims.

That is, in Figure 2 of Bender, interconnect 46 is disposed between BSC 24C and BSC 24B to realize a soft-handoff of the intersystem in the same CDMA system. Thus, it can only be that when a mobile station moves from the area of BSC 24A to the area of BSC 24B, communication will be maintained via interconnect 46. In other words, BSC 24A still controls the mobile station via BSC 24B.

In contrast, the present invention realizes an intersystem hard-handoff between a home system and another system. Therefore, as defined exemplarily by new dependent claims 12-17, an interconnect is disposed between the MSC of the home system and the MSC of another system to exchange information of the mobile system between the MSCs. In the present invention, when a mobile station moves to the MSC of another system, the other system controls the mobile station and the home system is not concerned with the control of the mobile system. In other words, this interconnect is used for transmitting necessary information to maintain the communication of the mobile station after the hand-off is made.

Accordingly, the disposed position and the purpose of the interconnect in the present invention and Bender are quite different from each other.

Furthermore, in Bender, when there are many BSCs of another system which are adjacent to a BSC of a home system, many interconnects are required to connect the BSC of a home system and the BSCs of another system. The complexity of this system configuration would result in a high installation cost.

Therefore, Applicant submits that there are elements of the claimed invention that are not taught or suggest by Bender, and the Examiner is respectfully requested to withdraw this rejection.

Hence, turning to the clear language of the claims, in Bender there is no teaching or suggestion of: "... a base station controller having channel station data indicative of whether there is a channel between a mobile switching center as a master station thereof and another mobile switching center, said base station controller having means for, when a hand-off control process is to be performed via said mobile switching center as the master station while communication with said mobile station through said base station, determining whether or not, based on said channel station data, said mobile switching center as the master station has a

channel connected to the other mobile switching center, and, if said mobile switching center as the master station has a channel connected to the other mobile switching center, requesting a hand-off control process as a process for switching communication channels for communication with said mobile station ...", as required by claim 1. The remaining independent claims have similar language.

For the reasons stated above, the claimed invention is fully patentable over the cited reference.

Further, the other prior art of record has been reviewed, but it too, even in combination with Bender, fails to teach or suggest the claimed invention.

III. FORMAL MATTERS AND CONCLUSION

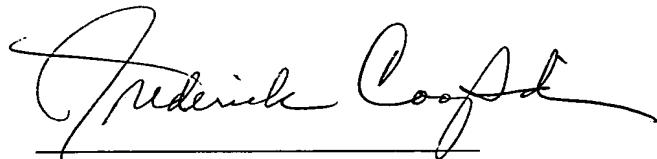
In view of the foregoing, Applicant submits that claims 1-17, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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